RAPHAEL FAKHRI

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OBJECTIVE

Resourceful and proactive Software Developer who takes initiative to solve problems and continuously improve. Known for quickly learning new skills, working independently when needed, and contributing dependable, high-quality results. Excited to join a forward-thinking team where I can grow, add value, and help turn ideas into practical solutions.

EDUCATION

Master of Science in Computer Science 2025
American University of Beirut
GPA: 3.83

Bachelor of Science in Computer Science 2023
Saint Joseph University of Beirut

WORK EXPERIENCE

Cardinal Health — WaveMark 2025
Software Engineer Intern *Beirut, Lebanon*

- Engineered an autonomous LLM-powered agent that performs data comparison and generates patching proposals, built with MLOps best practices and secure, scalable architectural design to ensure data integrity and ease of use
- Presented the application to stakeholders, showcasing its developer-augmenting AI capabilities and demonstrating expertise in building high-quality software with cutting-edge technology

American University of Beirut 2023–2025
Graduate Academic Assistant *Beirut, Lebanon*

- Developed and maintained 50+ pages for aubmed.ac.cy using HTML/CSS/JavaScript
- Successfully implemented 200+ feature requests with 100% on-time delivery
- Optimized web performance through image compression and modular CSS architecture
- Integrated multiple JavaScript libraries including pdf.js and jstree.js

Saint Joseph University 2023
Software Developer *Beirut, Lebanon*

- Migrated MySQL database to PostgreSQL
- Implemented HR module with 15+ pages using PHP Laravel MVC framework
- Designed custom authentication system with granular SQL permission management
- Developed responsive frontend components using Laravel and Tailwind CSS
- Optimized complex SQL queries achieving 40% faster response times

Monty Mobile 2022
Data Science Intern *Beirut, Lebanon*

- Conducted user behavior analysis using RFM (Recency Frequency Monetary) model
- Proposed KNN-based credit scoring system to replace rule-based approach
- Identified 12 key features through stakeholder interviews and data analysis
- Created technical specification documents and implementation roadmap

TECHNICAL PROJECTS

LLM Security Thesis 2024-2025
AI Research

· Comparing fine-tuned vs RAG models for application security using custom dataset
· Implementing QLoRA fine-tuning with 7B parameter LLM on NVIDIA A100
· Developing RAG pipeline with FAISS vector database and BERT embeddings

GPU Optimized Heap Structure 2024
High Performance Computing

· Designed parallel heap algorithm using CUDA with block/warp-level optimizations
· Achieved 88% runtime reduction for 10M+ element sorting tasks
· Implemented memory coalescing and shared memory optimization techniques

Multimodal Music Analysis 2023
Machine Learning

· Built pipeline integrating Whisper, GPT-4, and Stable Diffusion models
· Developed hybrid sentiment analysis combining lyrics and mel-spectrogram features
· Created cross-modal image generation systems

OPEN SOURCE CONTRIBUTIONS

- **Apache Kafka (Java Project)** – Contributor April 2025–Present
- **Slimefun Java Plugin** – Contributor March 2025–Present

SKILLS

Languages	Python, JavaScript, C#, PHP, SQL, C/C++, CUDA, HTML/CSS/JS
Frameworks	Laravel, React, PyTorch, TensorFlow, Hugging Face, .NET, FastAPI
Databases	PostgreSQL, MySQL, FAISS, Redis, MongoDB, Elasticsearch
Tools	Git, Docker, AWS, Linux, Windows Server, Virtual Machines, Microsoft Suite
AI/ML	LLM Fine-tuning, RAG, Computer Vision, NLP, Transformers, MLFlow
Soft Skills	Cross-functional collaboration, Technical mentorship, Agile teamwork, Requirements analysis, Systems design thinking, Complex problem-solving, Technical documentation, Process optimization, Stakeholder communication

EXTRACURRICULAR ACTIVITIES

- Mentored student to 83% course average, securing full tuition scholarship 2022–2023
- Led 40+ tutoring sessions with adaptive teaching methods 2022–2023
- Selected by CS Dean for competitive graduate assistantship 2024–2025